

REMARKS

These remarks are in response to the Office Action mailed February 8, 2005 and made final (hereinafter referred to as the "Office Action"), having a shortened statutory period for response that expires May 9, 2005. Entry of the accompanying amendments is respectfully requested in light of the accompanying Request for Continued Examination (RCE).

At the time of the last Examination, Claims 57-86 were pending, and now stand rejected. By this amendment, Claims 59, 60, 63, 64, 81 and 82 are cancelled, and Claims 87 and 88 are added. Claims 83 and 86 are currently amended herein. Accordingly, upon entry of this amendment, Claims 57, 58, 61, 62, 65-80, and 83-88 will be pending for further consideration by the Examiner. Reconsideration of all of the pending rejections is respectfully requested in light of the following remarks.

Section 2 of the Office Action rejects Claims 71-86 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. This rejection is moot for cancelled Claims 81 and 82, but remains with respect to Claims 71-80 and 82-86. The applicants respectfully traverse, and will now show examples of support in the specification for the recited language in the claims. The identification of specific language in the description as supporting a recited element of the claim should not be construed as an indication that that identified language is the only language in the specification that supports the element. Where a figure or element of a figure is described as supporting an element, the accompanying description for that figure or element also supports the claim.

Independent Claim 71 is supported at least by Figure 23 and the accompanying description. Referring to Figure 23, an example of the "first communication apparatus" is apparatus 74; an example of "the second communication apparatus" is the apparatus 71 or 72,

and an example of the "third communication apparatus" is the apparatus 73. The first step of the recited method may be, for example, process (b) in Figure 23. The second step may be, for example, process (d) in Figure 23. The third and fourth steps may be, for example, process (e) in Figure 23. The support for dependent Claims 72 and 73 should be apparent based on the explanation provided herein for their respective independent Claim 71.

Independent Claim 74 is supported at least also by Figure 23, and the accompanying description. Referring to Figure 23, an example of the "first communication apparatus" is apparatus 71; an example of "the second communication apparatus" is the apparatus 73 or 74, and an example of the "third communication apparatus" is the apparatus 72. The first step of the recited method may be, for example, processes (a) and (b) in Figure 23. The final two steps may be, for example, process (g) in Figure 23. The support for dependent Claims 75 should be apparent based on the explanation provided herein for their respective independent Claim 74. Dependent Claim 76 is supported by process (h) in Figure 23.

Independent Claim 77 is supported by Figure 24, and the accompanying description. Referring to Figure 24, an example of the "first communication apparatus" is apparatus 71; an example of "the second communication apparatus" is the apparatus 73 or 74, and an example of the "third communication apparatus" is the apparatus 72. The first step of the recited method may be, for example, process (a) in Figure 24. The final two steps may be, for example, process (b) in Figure 24. The support for dependent Claims 78 should be apparent based on the explanation provided herein for their respective independent Claim 77. Dependent Claim 79 is supported by process (c) in Figure 24. Dependent Claim 80 is supported by process (d) in Figure 24.

Independent Claim 83 is supported by Figure 24, and the accompanying description. Referring to Figure 24, an example of the "first communication apparatus" is apparatus 74; an example of "the second communication apparatus" is the apparatus 71 or 72, and an example of the "third communication apparatus" is the apparatus 73. The first step of the recited method may be, for example, process (a) in Figure 24. The second and third steps of the recited method may be, for example, process (b) in Figure 24. The last step of the recited method may be, for example, process (c) in Figure 24. Dependent Claim 84 is supported by process (d) in Figure 24.

Independent Claim 85 is supported by Figure 25, and the accompanying description. Referring to Figure 25, an example of the "first communication apparatus" is apparatus 71; an example of "the second communication apparatus" is the apparatus 73 or 74, and an example of the "third communication apparatus" is the apparatus 72. The first two steps of the recited method may be, for example, process (a) in Figure 25. The final two steps may be, for example, process (b) in Figure 25. It should be apparent from the explanation for the corresponding independent claims how Claim 86 is supported by the specification.

Accordingly, the 35 U.S.C. 112, first paragraph, rejection should be withdrawn.

Section 4 of the Office Action rejects Claims 57-64 under 35 U.S.C. 103(a) as being unpatentable over United States patent number 5,978,386 issued to Hamalainen et al. (the patent hereinafter referred to as "Hamalainen") in view of European patent application 0942569 to Dravida (the application hereinafter referred to as "Dravida"). This rejection is moot for cancelled Claims 59, 60, 63 and 64, but remains with respect to Claims 57, 58, 61 and 62.

Claim 57, 58, 61 and 62 each recite "converting [] first data into second data". The first data (in Claims 57 and 61) or second data (in Claims 58 and 62) "is data having a PPP frame configuration and is octet-inserted or bit-inserted." The second data (in Claim 57 and 61) or

first data (in Claims 58 and 62) "is data having a frame configuration in which additional information including information for identifying a frame partition is added to a PPP frame configuration, or a frame configuration in which additional information including information for identifying a frame partition is added to a frame configuration flag-deleted from a PPP frame configuration, and is not octet-inserted or not bit-inserted."

Dravida discloses using length instead of flag in a PPP frame. Hamalainen discloses converting a GLP frame into a PPP frame with reference to Figure 4. Hamalainen uses GLP, since GLP can provide all the necessary function for the link layer operation (see column 7, lines 33-40 of Hamalainen). Therefore, even if one skilled in the art considers using the improved PPP frame of Dravida in place of the PPP frame in Hamalainen, that person would not consider using the improved PPP frame of Dravida in place of the GLP frame in Hamalainen.

Therefore, Claims 57, 58, 61, and 62 are not be unpatentable over the Hamalainen and Dravida, and thus withdrawal of the rejection is respectfully requested.

Section 5 of the Office Action rejects Claims 65-67 under 35 U.S.C. 103(a) as being unpatentable over United States patent number 5,666,362 issued to Chen et al. (the patent hereinafter referred to as "Chen").

Independent Claim 65 recites "[a] communication method in a third communication apparatus located between a first communication apparatus and a second communication apparatus." The Office Action asserts that it would be obvious to maintain member 101 separate from the computer DTE and perhaps associated with members 102 and 110 as well in Chen. However, if the member 101 is maintained separate from the computer DTE and associated with the member 102 or 110, then it should be said that the communication is conducted between the member 102 or 110 and the opponent, instead of between the PC 100 and the opponent. It

cannot be said that such communication is a communication (method) in a third communication apparatus located between a first communication apparatus and a second communication apparatus, as recited in Claim 65.

Therefore, Claim 65 is not unpatentable over Chen. Claim 66 and 67 depend from Claim 65, and are thus not unpatentable over Chen for at least the reasons provided for Claim 65. Therefore, withdrawal of the rejection is respectfully requested.

Section 6 of the Office Action rejects Claims 68-70 under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art (hereinafter "AAPA") in view of Hamalainen.

Claim 68 recites a method in the third communication apparatus, that "receiv[es] an LCP discard request transmitted by the first communication apparatus to the second communication apparatus; and discard[s] the LCP discard request.

The Office Action asserts that Claim 68 is not non-obvious since AAPA discusses the use of LCP echo request/response packets and also the problem of "extra tariff", and Hamalainen discusses reducing data by discarding unwanted or unnecessary data in an intermediate node. However, in the specification of the present application, the applicant just pointed out a problem in the prior art, and did not admit that that problem itself was already known or recognized. Further, even if Hamalainen discusses reducing data by discarding unwanted or unnecessary data, what is important is which one is unwanted or unnecessary data. Hamalainen does not disclose specifically that the "LCP discard request" is unwanted or unnecessary data.

Therefore, Claim 68 is not unpatentable over AAPA in view of Hamalainen. Claims 69 and 70 depend from Claim 68, and are thus not unpatentable over AAPA in view of Hamalainen for at least the reasons provided for Claim 65. Therefore, withdrawal of the rejection is respectfully requested.

Section 7 of the Office Action rejects Claims 71-76 and 86 under 35 U.S.C. 103(a) as being unpatentable over European Patent Application number 933898 to Hirono (the application hereinafter referred to as "Hirono").

As recited in independent Claim 71, a communication method in the third communication apparatus involves "intermediating a setting request packet from the second communication apparatus to the first communication apparatus; receiving a setting rejection packet from the first communication apparatus; producing a setting request packet according to the setting rejection packet or the setting negation packet; and transmitting the produced setting request packet to the first communication apparatus."

Essentially, the Office Action asserts that Claim 71 is obvious based on the communication based on the communication control apparatus 10 between the radio terminal 11 and the base station 12 in Hirono (see abstract, Figure 1, etc.). However, although the communication control apparatus 10 of Hirono may intermediate communication, it does not produce a setting request packet according to the setting rejection packet or the setting negation packet. Thus, Claim 71 is not unpatentable over Hirono. Claims 72, 74 are a part of Claim 86 depend from Claim 71, and are thus not unpatentable over Hirono for at least the reasons provided for Claim 71.

As recited in independent Claim 74, a communication method in the third communication apparatus involves "intermediating a setting request packet from the first communication apparatus to the second communication apparatus; intermediating a notification of setting rejection or setting negation from the second communication apparatus to the first

communication apparatus; receiving a setting request packet from the first communication apparatus; and terminating the received setting request packet."

The Office Action asserts that Claim 74 is obvious based on the communication based on the communication control apparatus 10 between the radio terminal 11 and the base station 12 in Hirano (see abstract, Figure 1, etc.). However, if it is considered that the communication control apparatus 10 intermediates a setting request packet from the radio terminal 11 in Hirano, it is clear that the communication control apparatus 10 never terminates such packet. Thus, Claim 74 is not unpatentable over Hirano. Claims 75, 76 are a part of Claim 86 depend from Claim 74, and are thus not unpatentable over Hirano for at least the reasons provided for Claim 74.

Section 8 of the Office Action rejects Claims 77-84 under 35 U.S.C. 103(a) as being unpatentable over United States patent number 6,320,874 issued to Crump et al. (the patent hereinafter being referred to as "Crump"). The rejection is moot with respect to cancelled Claims 81 and 82, but remains with respect to Claims 77-80, 83 and 84. Independent Claim 77 recites that the method in the third communication apparatus involves "intermediating a notification of an end request from the first communication apparatus to the second communication apparatus; producing an end identification packet; and transmits the produced end identification packet to the first communication apparatus.

The Office Action asserts that Claim 77 is obvious by referring to the translating device 110 of Crump. However, in Crump, both the data that the translating device 110 receives from the TCP device 118, and the data that the translating device 110 transmits to the TCP device 118 are the same TCP FIN message (see Figure 3). Therefore, it cannot be said that the translating device receives a notification of end request from a first communication apparatus, and transmits an end identification packet to the first communication apparatus.

Thus, Claim 77 is not unpatentable over Crump. Claims 78, 79 and 80 depend from Claim 77, and are thus not unpatentable over Crump for at least the reasons provided for Claim 77.

Claim 83 recites that the method in the third communication apparatus involves "intermediating a notification of end request from the second communication apparatus to the first communication apparatus; receiving an end identification packet from the first communication apparatus; and terminating the end identification packet."

Here, the third communication apparatus produces an end identification signal and transmits it to the second communication apparatus, when the third communication apparatus receives an end request packet from the first communication apparatus after intermediating a notification of end request from the second communication apparatus to the first communication apparatus. As mentioned above, the Office Action asserts that this claim is obvious by referring to the translating device 110 of Crump. However, in Crump, the translating device 110 does not produce an end identification signal and transmits it.

Thus, Claim 83 is not unpatentable over Crump. Claim 84 depends from Claim 83, and is thus not unpatentable over Crump for at least the reasons provided for Claim 83.

Section 9 of the Office Action rejects Claim 85 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Hamalainen. As recited in Claim 85, the method in the third communication apparatus involves "receiving an echo request packet from the first communication apparatus to the second communication apparatus; terminating the echo request; producing an echo response packet; and transmitting the echo response packet to the first communication apparatus."

The Office Action asserts that since Hamalainen discusses reducing data by discarding unwanted or unnecessary data in an intermediate node, the present invention of claim 85 is obvious over Hamalainen and Chen. However, even if Hamalainen discusses reducing data by discarding unwanted or unnecessary data, what is important is which one is unwanted or unnecessary data. Hamalainen does not disclose specifically that "echo request" is unwanted or unnecessary data.

Therefore, Claim 85 is not obvious over Chen in view of the present invention of claim 85 is not unpatentable over Chen in view of Hamalainen.

Accordingly, favorable action is respectfully requested. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 9th day of May, 2005.

Respectfully submitted,



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